0010649506
WPI Acc no: 2001-257172/200126
Related WPI Acc No: 2000-638399; 2000-672579; 2000-686872; 2001-158898; 2001-234673; 2001-273127; 2001-281170; 2002-066243; 2002-239605; 2003-844002; 2004-571507; 2005-403088; 2005-423978; 2005-701361; 2005-767922; 2005-785152
XRPX Acc No: N2001-183404

Automatic playback position correction for video cassette recorder, by determining new position by adding or subtracting positional offset to current position, when reverse or fast forward mode is terminated

Patent Assignee: TIVO INC (TIVO-N)
Inventor: STAM W V; VALLONE R; VALLONE R P; VAN STAM W J; STAM W J V; VOLLONE R P

Patent Family (6 patents, 85 countries)

Patent Number	Kind	Date	Application Number	Kind	Date	Update	Type
WO 2000062298	A1	20001019	WO 2000US8596	A	20000330	200126	B
AU 200041859	A	20001114	AU 200041859	A	20000330	200126	E
EP 1183689	A1	20020306	EP 2000921559	A	20000330	200224	E
			WO 2000US8596	A	20000330		
CN 1367925	A	20020904	CN 2000808229	A	20000330	200281	E
US 6850691	B1	20050201	US 1999127178	P	19990330	200511	E
			US 2000539295	A	20000330		
CN 1265386	C	20060719	CN 2000808229	A	20000330	200678	E

Priority Applications (no., kind, date): US 1999127178 P 19990330; US 2000539295 A 20000330

Patent Details

Patent Number	Kind	Lan	Pgs	Draw	Filing Notes	
WO 2000062298	A1	EN	82	33		
National Designated States,Original	AL AM AT AU AZ BA BB BG BR BY CA CH CN CU CZ DE DK EE ES FI GB GD GE GH GM HR HU ID IL IN IS JP KE KG KP KR KZ LC LK LR LS LT LU LV MD MG MK MN MW MX NO NZ PL PT RO RU SD SE SG SI SK SL TJ TM TR TT UA UG UZ VN YU ZA ZW					
Regional Designated States,Original	AT BE CH CY DE DK EA ES FI FR GB GH GM GR IE IT KE LS LU MC MW NL OA PT SD SE SL SZ TZ UG ZW					
AU 200041859	A	EN			Based on OPI patent	WO 2000062298
EP 1183689	A1	EN			PCT Application	WO 2000US8596
					Based on OPI patent	WO 2000062298
Regional Designated States,Original	AT BE CH CY DE DK ES FI FR GB GR IE IT LI LU MC NL PT SE					

US 6850691	B1	EN			Related to Provisional	US 1999127178

Alerting Abstract WO A1

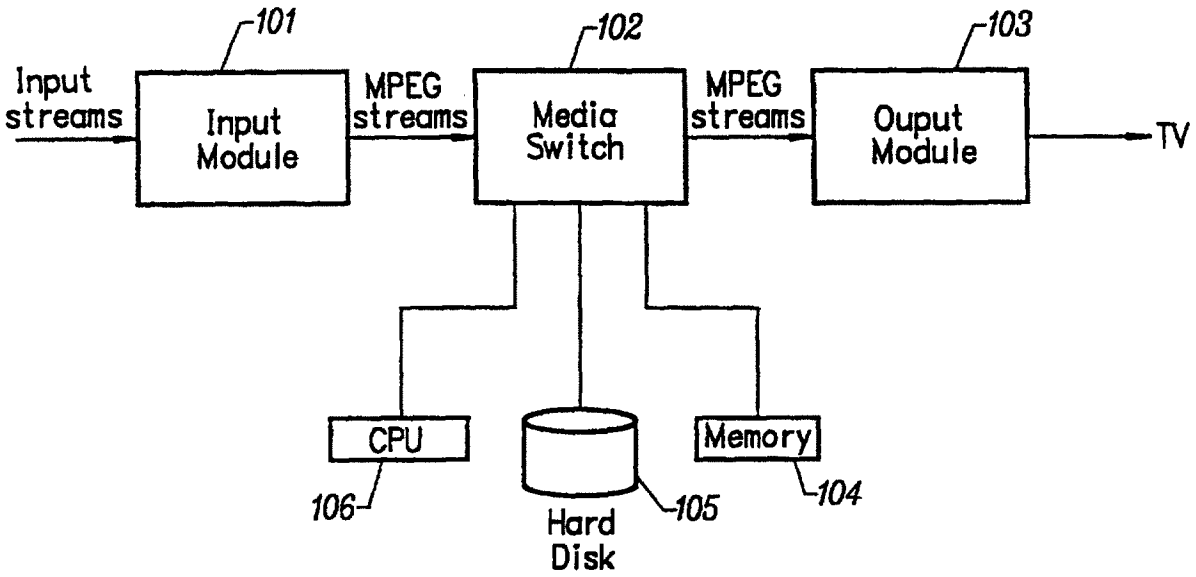
NOVELTY - NEEDS EDITING
A media controller receives user command, to terminate fast forward or reverse progression via program material. Controller detects current position in program material where termination occurs. A positional offset is added or subtracted to current and new positions is determined, when reverse mode or fast forward mode is terminated. Media controller is commanded to display program stored at new position.
DESCRIPTION - INDEPENDENT CLAIMS are also included for the following:

A. automatic playback position correcting apparatus;

B. automatic playback position correcting program

USE - For correcting playback position of video or audio program material in multimedia devices such as video cassette recorder (VCR), digital video disk (DVD) players, MP3 players, cassette players, compact disk (CD) players, video tape editors and personal video recorders (PVR).
ADVANTAGE - Corrects the difference between user's expected stop position and actual position when the user terminates fast forwarding or reversing of program.
DESCRIPTION OF DRAWINGS - The figure shows the block schematic diagram of high level view of playback position correction apparatus.

Main Drawing Sheet(s) or Clipped Structure(s)



Title Terms /Index Terms/Additional Words: AUTOMATIC; PLAYBACK; POSITION; CORRECT; VIDEO; CASSETTE; RECORD; DETERMINE; NEW; ADD; SUBTRACT; OFFSET; CURRENT; REVERSE; FAST; FORWARD; MODE; TERMINATE

Class Codes

International Patent Classification

IPC	Class Level	Scope	Position	Status	Version Date
G06F-0011/14	A	I		R	20060101
G11B-0027/00	A	I		R	20060101
G11B-0027/032	A	N		R	20060101
G11B-0027/036	A	N		R	20060101
G11B-0027/10	A	I		R	20060101
G11B-0027/34	A	I		R	20060101
H04N-0005/44	A	N		R	20060101
H04N-0005/445	A	I		R	20060101
H04N-0005/775	A	N		R	20060101
H04N-0005/781	A	N		R	20060101
H04N-0005/782	A	I		R	20060101
H04N-0005/783	A	N		R	20060101
H04N-0007/16	A	N		R	20060101
H04N-0009/79	A	N		R	20060101
H04N-0009/804	A	I		R	20060101
H04N-0009/806	A	N		R	20060101
H04N-0009/82	A	N		R	20060101
G11B-0027/031	A	I	L		20060101
G11B-0027/10	A	I	F		20060101
G06F-0011/14	C	I		R	20060101
G11B-0027/00	C	I		R	20060101
G11B-0027/031	C	N		R	20060101
G11B-0027/10	C	I		R	20060101
G11B-0027/34	C	I		R	20060101
H04N-0005/44	C	N		R	20060101
H04N-0005/445	C	I		R	20060101
H04N-0005/775	C	N		R	20060101
H04N-0005/781	C	N		R	20060101
H04N-0005/782	C	I		R	20060101
H04N-0005/783	C	N		R	20060101
H04N-0007/16	C	N		R	20060101
H04N-0009/79	C	N		R	20060101
H04N-0009/804	C	I		R	20060101
H04N-0009/82	C	N		R	20060101

US Classification, Issued: 386068000, 386070000

File Segment: EPI;
DWPI Class: W04; T01; W03
Manual Codes (EPI/S-X): W04-F; W04-H01C

Original Publication Data by Authority

Australia

Publication No. AU 200041859 A (Update 200126 E)
Publication Date: 20001114
Assignee: TIVO INC; US (TIVO-N)
Language: EN
Application: AU 200041859 A 20000330 (Local application)
Priority: US 1999127178 P 19990330
US 2000539295 A 20000330
Related Publication: WO 2000062298 A (Based on OPI patent)
Original IPC: G11B-27/10(A) G11B-27/031(B)
Current IPC: G06F-11/14(R,I,M,EP,20060101,20051008,A) G06F-11/14(R,I,M,EP,20060101,20051008,C) G11B-27/00(R,I,M,EP,20060101,20051008,A) G11B-27/00(R,I,M,EP,20060101,20051008,C) G11B-27/031(R,N,M,EP,20060101,20051008,C) G11B-27/032(R,N,M,EP,20060101,20051008,A) G11B-27/036(R,N,M,EP,20060101,20051008,A) G11B-27/10(R,I,M,EP,20060101,20051008,A) G11B-27/10(R,I,M,EP,20060101,20051008,C) G11B-27/34(R,I,M,EP,20060101,20051008,A) G11B-27/34(R,I,M,EP,20060101,20051008,C) H04N-5/44(R,N,M,EP,20060101,20051008,A) H04N-5/44(R,N,M,EP,20060101,20051008,C) H04N-5/445(R,I,M,EP,20060101,20051008,A) H04N-5/445(R,I,M,EP,20060101,20051008,C) H04N-5/775(R,N,M,EP,20060101,20051008,A) H04N-5/775(R,N,M,EP,20060101,20051008,C) H04N-5/781(R,N,M,EP,20060101,20051008,A) H04N-5/781(R,N,M,EP,20060101,20051008,C) H04N-5/782(R,I,M,EP,20060101,20051008,A) H04N-5/782(R,I,M,EP,20060101,20051008,C) H04N-5/783(R,N,M,EP,20060101,20051008,A) H04N-5/783(R,N,M,EP,20060101,20051008,C) H04N-7/16(R,N,M,EP,20060101,20051008,A) H04N-7/16(R,N,M,EP,20060101,20051008,C) H04N-9/79(R,N,M,EP,20060101,20051008,A) H04N-9/79(R,N,M,EP,20060101,20051008,C) H04N-9/804(R,I,M,EP,20060101,20051008,A) H04N-9/804(R,I,M,EP,20060101,20051008,C) H04N-9/806(R,N,M,EP,20060101,20051008,A) H04N-9/82(R,N,M,EP,20060101,20051008,A) H04N-9/82(R,N,M,EP,20060101,20051008,C)

China

Publication No. CN 1265386 C (Update 200678 E)
Publication Date: 20060719
Assignee: TIVO INC; US (TIVO-N)
Inventor: VOLLONE R P
STAM W J V
Language: ZH
Application: CN 2000808229 A 20000330 (Local application)
Priority: US 1999127178 P 19990330
US 2000539295 A 20000330
Original IPC: G11B-27/031(I,CN,20060101,A,L) G11B-27/10(I,CN,20060101,A,F)
Current IPC: G11B-27/031(I,CN,20060101,A,L) G11B-27/10(I,CN,20060101,A,F)

Publication No. CN 1367925 A (Update 200281 E)
Publication Date: 20020904
Assignee: TIVO INC; US (TIVO-N)
Language: ZH
Application: CN 2000808229 A 20000330 (Local application)
Priority: US 1999127178 P 19990330
US 2000539295 A 20000330
Original IPC: G11B-27/10(A) G11B-27/031(B)
Current IPC: G06F-11/14(R,I,M,EP,20060101,20051008,A) G06F-11/14(R,I,M,EP,20060101,20051008,C) G11B-27/00(R,I,M,EP,20060101,20051008,A) G11B-27/00(R,I,M,EP,20060101,20051008,C) G11B-27/031(R,N,M,EP,20060101,20051008,C) G11B-27/032(R,N,M,EP,20060101,20051008,A) G11B-27/036(R,N,M,EP,20060101,20051008,A) G11B-27/10(R,I,M,EP,20060101,20051008,A) G11B-27/10(R,I,M,EP,20060101,20051008,C) G11B-27/34(R,I,M,EP,20060101,20051008,A) G11B-27/34(R,I,M,EP,20060101,20051008,C) H04N-5/44(R,N,M,EP,20060101,20051008,A) H04N-5/44(R,N,M,EP,20060101,20051008,C) H04N-5/445(R,I,M,EP,20060101,20051008,A) H04N-5/445(R,I,M,EP,20060101,20051008,C) H04N-5/775(R,N,M,EP,20060101,20051008,A) H04N-5/775(R,N,M,EP,20060101,20051008,C) H04N-5/781(R,N,M,EP,20060101,20051008,A) H04N-5/781(R,N,M,EP,20060101,20051008,C) H04N-5/782(R,I,M,EP,20060101,20051008,A) H04N-5/782(R,I,M,EP,20060101,20051008,C) H04N-5/783(R,N,M,EP,20060101,20051008,A) H04N-5/783(R,N,M,EP,20060101,20051008,C) H04N-7/16(R,N,M,EP,20060101,20051008,A) H04N-7/16(R,N,M,EP,20060101,20051008,C) H04N-9/79(R,N,M,EP,20060101,20051008,A) H04N-9/79(R,N,M,EP,20060101,20051008,C) H04N-9/804(R,I,M,EP,20060101, 20051008,A) H04N-9/804(R,I,M,EP,20060101,20051008,C) H04N-9/806(R,N,M,EP,20060101,20051008,A) H04N-9/82(R,N,M,EP,20060101,20051008,A) H04N-9/82(R,N,M,EP,20060101,20051008,C)

EPO

Publication No. EP 1183689 A1 (Update 200224 E)
Publication Date: 20020306
SYSTEM ZUR AUTOMATISCHEN KORREKTUR DER WIEDERGABEPOSITION NACH SCHNELLEM VOR- ODER RUCKSPULEN
SYSTEM FOR AUTOMATIC PLAYBACK POSITION CORRECTION AFTER FAST FORWARD OR REVERSE
SYSTEME DE CORRECTION DE POSITION DE LECTURE AUTOMATIQUE APRES AVANCE OU RECUL RAPIDE
Assignee: Tivo, Inc., 2160 Gold Street, P.O. Box 2160, Alviso, CA 95002-2160, US
Inventor: VALLONE, Robert, P., 2626 Bryant Street, Palo Alto, CA 94306, US
VAN STAM, Wijnand, J., 2124 Rock Street 19, Mountain View, CA 94043, US
Agent: Schoppe, Fritz, Dipl.-Ing., Patentanwalte Schoppe, Zimmermann, Stockeler & Zinkler, Postfach 71 08 67, 81458 Munchen, DE
Language: EN
Application: EP 2000921559 A 20000330 (Local application)
WO 2000US8596 A 20000330 (PCT Application)
Priority: US 1999127178 P 19990330
US 2000539295 A 20000330
Related Publication: WO 2000062298 A (Based on OPI patent)
Designated States: (Regional Original) AT BE CH CY DE DK ES FI FR GB GR IE IT LI LU MC NL PT SE

Original IPC: G11B-27/10(A) G11B-27/031(B)
Current IPC: G06F-11/14(R,I,M,EP,20060101,20051008,A) G06F-11/14(R,I,M,EP,20060101,20051008,C) G11B-27/00(R,I,M,EP,20060101,20051008,A) G11B-27/00(R,I,M,EP,20060101,20051008,C) G11B-27/031(R,N,M,EP,20060101,20051008,C) G11B-27/032(R,N,M,EP,20060101,20051008,A) G11B-27/036(R,N,M,EP,20060101,20051008,A) G11B-27/10(R,I,M,EP,20060101,20051008,A) G11B-27/10(R,I,M,EP,20060101,20051008,C) G11B-27/34(R,I,M,EP,20060101,20051008,A) G11B-27/34(R,I,M,EP,20060101,20051008,C) H04N-5/44(R,N,M,EP,20060101,20051008,A) H04N-5/44(R,N,M,EP,20060101,20051008, C) H04N-5/445(R,I,M,EP,20060101,20051008,A) H04N-5/445(R,I,M,EP,20060101,20051008,C) H04N-5/775(R,N,M,EP,20060101,20051008,A) H04N-5/775(R,N,M,EP,20060101,20051008,C) H04N-5/781(R,N,M,EP,20060101,20051008,A) H04N-5/781(R,N,M,EP,20060101,20051008,C) H04N-5/782(R,I,M,EP,20060101,20051008,A) H04N-5/782(R,I,M,EP,20060101,20051008,C) H04N-5/783(R,N,M,EP,20060101,20051008,A) H04N-5/783(R,N,M,EP,20060101,20051008,C) H04N-7/16(R,N,M,EP,20060101,20051008,A) H04N-7/16(R,N,M,EP,20060101,20051008,C) H04N-9/79(R,N,M,EP,20060101,20051008,A) H04N-9/79(R,N,M,EP,20060101,20051008,C) H04N-9/804(R,I,M,EP,20060101,20051008,A) H04N-9/804(R,I,M,EP,20060101,20051008,C) H04N-9/806(R,N,M,EP,20060101,20051008,A) H04N-9/82(R,N,M,EP,20060101,20051008,A) H04N-9/82(R,N,M,EP,20060101,20051008,C)
Original Abstract: An automatic playback overshoot correction system predicts the position in the program material where the user expects to be when the user stops the fast forward or reverse progression of the program material.

United States

Publication No. US 6850691 B1 (Update 200511 E)
Publication Date: 20050201
Automatic playback overshoot correction system
Assignee: Tivo, Inc., Alviso, CA, US (TIVO-N)
Inventor: Stam, Wijnand Van, Sunnyvale, CA, US
Vallone, Robert, Palo Alto, CA, US
Agent: Wong, Kirk D., US
Hickman Palermo Truong & Becker LLP, US
Language: EN
Application: US 1999127178 P 19990330 (Related to Provisional)
US 2000539295 A 20000330 (Local application)
Original IPC: H04N-5/91(A)
Current IPC: G06F-11/14(R,I,M,EP,20060101,20051008,A) G06F-11/14(R,I,M,EP,20060101,20051008,C) G11B-27/00(R,I,M,EP,20060101,20051008,A) G11B-27/00(R,I,M,EP,20060101,20051008,C) G11B-27/031(R,N,M,EP,20060101,20051008,C) G11B-27/032(R,N,M,EP,20060101,20051008,A) G11B-27/036(R,N,M,EP,20060101,20051008,A) G11B-27/10(R,I,M,EP,20060101, 20051008,A) G11B-27/10(R,I,M,EP,20060101,20051008,C) G11B-27/34(R,I,M,EP,20060101,20051008,A) G11B-27/34(R,I,M,EP,20060101,20051008,C) H04N-5/44(R,N,M,EP,20060101,20051008,A) H04N-5/44(R,N,M,EP,20060101,20051008,C) H04N-5/445(R,I,M,EP,20060101,20051008,A) H04N-5/445(R,I,M,EP,20060101,20051008,C) H04N-5/775(R,N,M,EP,20060101,20051008,A) H04N-5/775(R,N,M,EP,20060101,20051008,C) H04N-5/781(R,N,M,EP,20060101,20051008,A) H04N-5/781(R,N,M,EP,20060101,20051008,C) H04N-5/782(R,I,M,EP,20060101,20051008,A) H04N-5/782(R,I,M,EP,20060101,20051008,C) H04N-5/783(R,N,M,EP,20060101,20051008,A) H04N-5/783(R,N,M,EP,20060101,20051008,C) H04N-7/16(R,N,M,EP,20060101,20051008,A) H04N-7/16(R,N,M,EP,20060101,20051008,C) H04N-9/79(R,N,M,EP,20060101,20051008,A) H04N-

9/79(R,N,M,EP,20060101,20051008,C) H04N-9/804(R,I,M,EP,20060101,20051008,A) H04N-9/804(R,I,M,EP,20060101,20051008,C) H04N-9/806(R,N,M,EP,20060101,20051008,A) H04N-9/82(R,N,M,EP,20060101,20051008,A) H04N-9/82(R,N,M,EP,20060101,20051008,C)
Original US Class (secondary): 38668 38670
Original Abstract: An automatic playback overshoot correction system predicts the position in the program material where the user expects to be when the user stops the fast forward or reverse progression of the program material. The invention determines the position where the program material was stopped. The media controller transitions to the new mode that the user selected, starting at the stopped position with an overshoot correction factor added or subtracted from it. The invention adapts to the user by remembering how much the user corrects after he stops the fast forward or reverse mode. Correction factors are calculated using the user's corrections and adjusting the correction factors if the user continues to make corrections. The invention also uses a prediction method to correctly place the user within the program upon transition out of either mode and determines if the speed of the fast forward or reverse modes and then automatically subtracts or adds, respectively, a time multiple to the frame where the transition was detected and positions the user at the correct frame. The time multiple is fine tuned if the user is consistently correcting after the fast forward or rewind mode stops. Another method initially tests the user's reaction time using a test video and asks the user to press the fast forward or reverse button on his control device during the test video and then asks the user to position the video to the place that he expected the system to have been. This time span is then used whenever the user uses the fast forward or reverse modes and is adjusted with a multiple for each speed. A final method allows the user to simply set a sensitivity setting that the system will use as a correction factor and a multiple is subtracted or added to the release frame whenever the user uses the fast forward or reverse modes, respectively.

Claim: What is claimed is:

1. 1. A process for automatically correcting the playback position within an audio or video program's material after a user terminates a fast forward or reverse progression through the program material, comprising the steps of:
   - providing a media controller;
   - receiving user command input;
   - terminating the fast forward or reverse progression through the program material based on the user's command;
   - wherein said media controller detects the current position in said program material where said termination occurred;
   - calculating a new position by adding a positional offset to said current position when reverse mode has been terminated or subtracting a positional offset from said current position when fast forward mode has been terminated; and
   - commanding said media controller to display said program material starting at said new position.

WIPO

Publication No. WO 2000062298 A1 (Update 200126 B)
Publication Date: 20001019

SYSTEM FOR AUTOMATIC PLAYBACK POSITION CORRECTION AFTER FAST FORWARD OR REVERSE

SYSTEME DE CORRECTION DE POSITION DE LECTURE AUTOMATIQUE APRES AVANCE OU RECUL RAPIDE

Assignee: TIVO, INC., 2160 Gold Street, P.O. Box 2160, Alviso, CA 95002-2160, US Residence: US Nationality: US (TIVO-N)
Inventor: VALLONE, Robert, P., 2626 Bryant Street, Palo Alto, CA 94306, US
VAN STAM, Wijnand, J., 2124 Rock Street #19, Mountain View, CA 94043, US
Agent: GLENN, Michael, A., Law Offices of Michael A. Glenn, 3475 Edison Way, Ste. L., Menlo Park, CA 94025, US
Language: EN (82 pages, 33 drawings)
Application: WO 2000US8596 A 20000330 (Local application)
Priority: US 1999127178 P 19990330
US 2000539295 A 20000330
Designated States: (National Original) AL AM AT AU AZ BA BB BG BR BY CA CH CN CU CZ DE DK EE ES FI GB GD GE GH GM HR HU ID IL IN IS JP KE KG KP KR KZ LC LK LR LS LT LU LV MD MG MK MN MW MX NO NZ PL PT RO RU SD SE SG SI SK SL TJ TM TR TT UA UG UZ VN YU ZA ZW
(Regional Original) AT BE CH CY DE DK EA ES FI FR GB GH GM GR IE IT KE LS LU MC MW NL OA PT SD SE SL SZ TZ UG ZW
Original IPC: G11B-27/10(A) G11B-27/031(B)
Current IPC: G06F-11/14(R,I,M,EP,20060101,20051008,A) G06F-11/14(R,I,M,EP,20060101,20051008,C) G11B-27/00(R,I,M,EP,20060101,20051008,A) G11B-27/00(R,I,M,EP,20060101,20051008,C) G11B-27/031(R,N,M,EP,20060101,20051008,C) G11B-27/032(R,N,M,EP,20060101,20051008,A) G11B-27/036(R,N,M,EP,20060101,20051008,A) G11B-27/10(R,I,M,EP,20060101,20051008,A) G11B-27/10(R,I,M,EP,20060101,20051008,C) G11B-27/34(R,I,M,EP,20060101,20051008,A) G11B-27/34(R,I,M,EP,20060101,20051008,C) H04N-5/44(R,N,M,EP,20060101,20051008,A) H04N-5/44(R,N,M,EP,20060101,20051008,C) H04N-5/445(R,I,M,EP,20060101,20051008,A) H04N-5/445(R,I,M,EP,20060101,20051008,C) H04N-5/775(R,N,M,EP,20060101,20051008,A) H04N-5/775(R,N,M,EP,20060101,20051008,C) H04N-5/781(R,N,M,EP,20060101,20051008,A) H04N-5/781(R,N,M,EP,20060101,20051008,C) H04N-5/782(R,I,M,EP,20060101,20051008,A) H04N-5/782(R,I,M,EP,20060101,20051008,C) H04N-5/783(R,N,M,EP,20060101,20051008,A) H04N-5/783(R,N,M,EP,20060101,20051008,C) H04N-7/16(R,N,M,EP,20060101,20051008,A) H04N-7/16(R,N,M,EP,20060101,20051008,C) H04N-9/79(R,N,M,EP,20060101,20051008,A) H04N-9/79(R,N,M,EP,20060101,20051008,C) H04N-9/804(R,I,M,EP,20060101,20051008,A) H04N-9/804(R,I,M,EP,20060101,20051008,C) H04N-9/806(R,N,M,EP,20060101,20051008,A) H04N-9/82(R,N,M,EP,20060101,20051008,A) H04N-9/82(R,N,M,EP,20060101,20051008,C)
Original Abstract: An automatic playback overshoot correction system predicts the position in the program material where the user expects to be when the user stops the fast forward or reverse progression of the program material.
L'invention concerne un systeme de correction de depassement de position de lecture automatique qui permet de prevoir la position du programme a laquelle l'utilisateur envisage de se trouver lorsqu'il interrompt l'avance ou le recul rapide dans le programme.